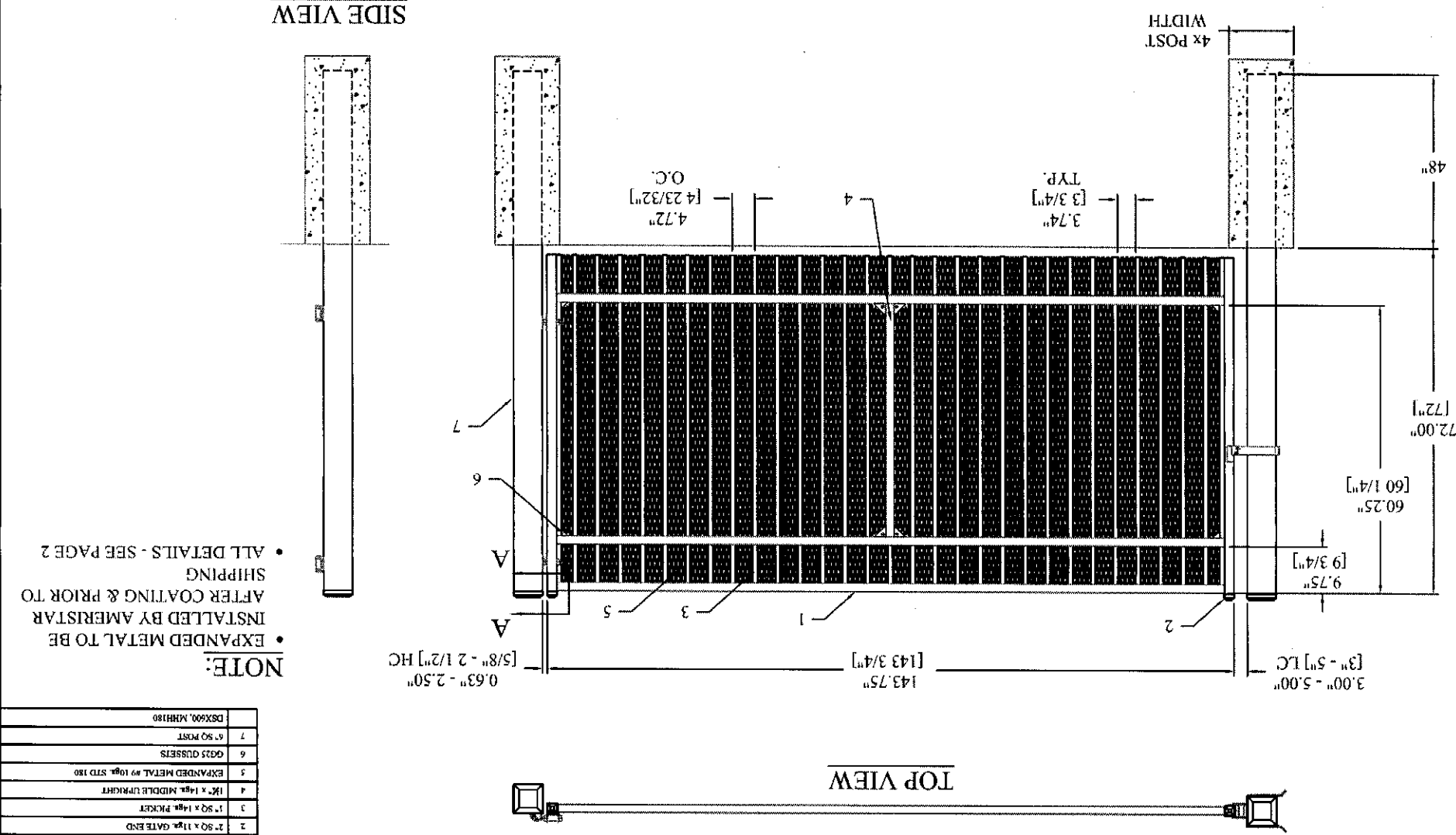


#	DESCRIPTION
1	1/2" SQ x 14ga FORERUNNER RAIL
2	2" SQ x 11ga GATE END
3	1" SQ x 14ga PICKET
4	1/2" x 14ga MIDDLE UPRIGHT
5	EXPANDED METAL #9 10ga STD 180
6	GG25 GUSSETS
7	6" SQ POST
	DSX600, MNH180

**NOTE:**

- EXPANDED METAL TO BE INSTALLED BY AMERISTAR AFTER COATING & PRIOR TO SHIPPING
- ALL DETAILS - SEE PAGE 2



REV	BY	DATE	DESCRIPTION
1	DR	11/13/12	DATE: 11/13/12
2	DR	11/13/12	DATE: 11/13/12
3	DR	11/13/12	DATE: 11/13/12
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100	DR	11/13/12	DATE: 11/13/12

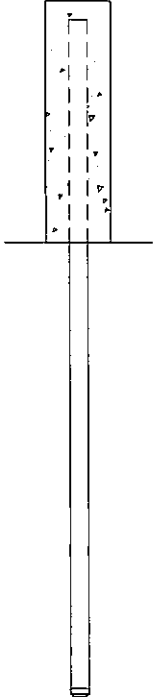
**ELEVATION VIEW**



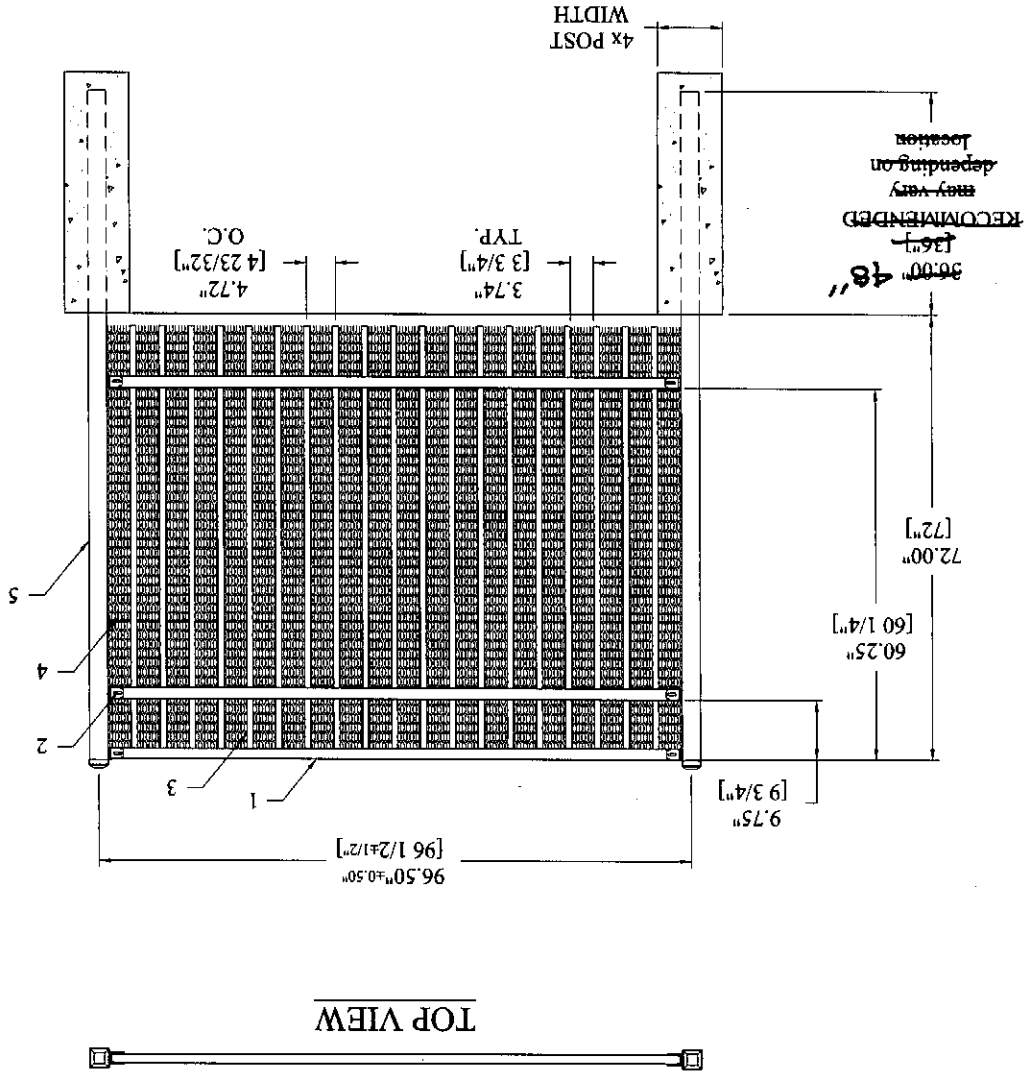
DRAWING NO:	13-200-8734
DRN BY:	DR
REV:	A
DATE:	11/13/12
SHEET:	1 of 2
TITLE:	MONTAGE II MAJESTIC STEEL GATE - SPECIAL

#	DESCRIPTION
1	1 1/2" 50 x 12ga. CHANNEL RAIL
2	4X301 BRACKET
3	1" 50 x 16ga. PICKET
4	EXPANDED METAL
5	3" 50 POST

NOTE:



TOP VIEW



## AMERISTAR FENCE PRODUCTS

### Montage II® - Heavy Industrial Steel Ornamental Fence System – Fusion Welded and Rackable CONSTRUCTION SPECIFICATION - SECTION 32 31 19

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED

The contractor shall provide all labor, materials and appurtenances necessary for installation of the welded ornamental steel fence system defined herein at (specify project site).

##### 1.02 RELATED WORK

Section \_\_\_\_\_ - Earthwork  
Section \_\_\_\_\_ - Concrete

##### 1.03 SYSTEM DESCRIPTION

The manufacturer shall supply a total fence system of Montage II® *Welded and Rackable* (ATF – All Terrain Flexibility) Ornamental Steel (specify *Invincible™*, *Classic™*, *Majestic™*, or *Genesis™*) design. The system shall include all components (i.e., panels, posts, gates and hardware) required.

##### 1.04 QUALITY ASSURANCE

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

##### 1.05 REFERENCES

- ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
- ASTM D523 - Test Method for Specular Gloss.
- ASTM D714 - Test Method for Evaluating Degree of Blistering in Paint.
- ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
- ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
- ASTM F2408 – Ornamental Fences Employing Galvanized Steel Tubular Pickets.

##### 1.06 SUBMITTAL

The manufacturer's literature shall be submitted prior to installation.

##### 1.07 PRODUCT HANDLING AND STORAGE

Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

##### 1.08 PRODUCT WARRANTY

A. All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of 20 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

B. Reimbursement for labor necessary to restore or replace components that have been found to be defective under the terms of manufactures warranty shall be guaranteed for five (5) years from date of original purchase.

#### PART 2 - MATERIALS

##### 2.01 MANUFACTURER

The fence system shall conform to Montage II® *Welded and Rackable* (ATF – All Terrain Flexibility) Ornamental Steel, (specify *Invincible™*, *Classic™*, *Majestic™*, or *Genesis™*) design, (specify extended picket or flush) bottom rail treatment, (specify 2-Rail, 3-Rail or 4-Rail) style manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma.

## **2.02 MATERIAL**

- A. Steel material for fence panels and posts shall conform to the requirements of ASTM A653/A653M, with a minimum yield strength of 45,000 psi (310 MPa) and a minimum zinc (hot-dip galvanized) coating weight of 0.90 oz/ft<sup>2</sup> (276 g/m<sup>2</sup>), Coating Designation G-90.
- B. Material for pickets shall be 1" square x 14 Ga. tubing. The rails shall be steel channel, 1.75" x 1.75" x .105". Picket holes in the rail shall be spaced 4.715" o.c. Fence posts and gate posts shall meet the minimum size requirements of Table 1.

## **2.03 FABRICATION**

- A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.
- B. Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar's proprietary fusion welding process, thus completing the rigid panel assembly (Note: The process produces a virtually seamless, spatter-free good-neighbor appearance, equally attractive from either side of the panel).
- C. The manufactured panels and posts shall be subjected to an inline electrodeposition coating (E-Coat) process consisting of a multi-stage pretreatment/wash (with zinc phosphate), followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic shall be 2 mils (0.058 mm). The color shall be (specify Black or Bronze). The coated panels and posts shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2 (Note: The requirements in Table 2 meet or exceed the coating performance criteria of ASTM F2408).
- D. The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Industrial weight fences under ASTM F2408.
- E. Swing gates shall be fabricated using 1.75" x 14ga Forerunner double channel rail, 2" sq. x 11ga. gate ends, and 1" sq. x 14ga. pickets. Gates that exceed 6' in width will have a 1.75" sq. x 14ga. intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding. Gusset plates will be welded at each upright to rail intersection. Cable kits will be provided for additional trussing for all gates leaves over 6'.

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

All new installation shall be laid out by the contractor in accordance with the construction plans.

### **3.02 FENCE INSTALLATION**

Fence post shall be spaced according to Table 3, plus or minus 1/2". For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers having a minimum depth of 36" (Note: In some cases, local restrictions of freezing weather conditions may require a greater depth). The "Earthwork" and "Concrete" sections of this specification shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient in strength for the intended application.

### **3.03 FENCE INSTALLATION MAINTENANCE**

When cutting/drilling rails or posts adhere to the following steps to seal the exposed steel surfaces: 1) Remove all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufacturer's warranty.

### **3.04 GATE INSTALLATION**

Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application, weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacturer of the gate and shall be installed per manufacturer's recommendations.

### **3.05 CLEANING**

The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.

Table 1 – Minimum Sizes for Montage II Posts				
Fence Posts	Panel Height			
2-1/2" x 12 Ga.	Up to & Including 6' Height			
3" x 12 Ga.	Over 6' Up to & Including 8' Height			
Gate Leaf	Gate Height			
	Up to & Including 4'	Over 4' Up to & Including 6'	Over 6' Up to & Including 8'	
Up to 4'	2-1/2" x 12 Ga.	3" x 12 Ga.	3" x 12 Ga.	
4' 1" to 6'	3" x 12Ga.	4" x 11 Ga.	4" x 11 Ga.	
6' 1" to 8'	3" x 12 Ga.	4" x 11 Ga.	6" x 3/16"	
8' 1" to 10'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"	
10' 1" to 12'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"	
12' 1" to 14'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"	
14' 1" to 16'	6" x 3/16"	6" x 3/16"	6" x 3/16"	

Table 2 – Coating Performance Requirements		
Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 1,500 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

Table 3 – Montage II – Post Spacing By Bracket Type									
Span	For INVINCIBLE® 8' Nominal (91-1/2" Rail)				For CLASSIC, GENESIS, & MAJESTIC 8' Nominal (92-5/8" Rail)				
Post Size	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"
Bracket Type	Industrial Flat Mount (BB301)*		Industrial Line 2-1/2" (BB319) 3" (BB320)		Industrial Universal 2.5" (BB302) 3" (BB303)		Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*
Post Settings ± 1/2" O.C.	94-1/2"	95"	94-1/2"	95"	96"	96-1/2"	96"	96-1/2"	*96" *96-1/2"

\*Note: When using BB304 swivel brackets on either or both ends of a panel installation, care must be taken to ensure the spacing between post and adjoining pickets meets applicable codes. This will require trimming one or both ends of the panel. When using the BB301 flat mount bracket for Invincible style, rail may need to be drilled to accommodate rail to bracket attachment.

## MONTAGE II®



## WIND LOADING

1-888-333-3422

FAX: 1-877-926-3747

Height (Ft)	Rail Length	Post Size	Montage II® Wind Load Capacity Factor (PSF)	Typical Wind Load Capacity (mph)
4	6	2-1/2" x 12 GA.	102.3	236
		3" x 12 GA.	122.8	259
	8	2-1/2" x 12 GA.	77.0	205
		3" x 12 GA.	92.2	224
5	6	2-1/2" x 12 GA.	65.5	189
		3" x 12 GA.	78.6	203
	8	2-1/2" x 12 GA.	49.3	164
		3" x 12 GA.	59.0	179
6	6	2-1/2" x 12 GA.	45.5	157
		3" x 12 GA.	54.6	172
	8	2-1/2" x 12 GA.	34.2	136
		3" x 12 GA.	41.0	149
7	6	2-1/2" x 12 GA.	33.4	135
		3" x 12 GA.	40.0	147
	8	2-1/2" x 12 GA.	25.0	116
		3" x 12 GA.	30.0	128
8	6	2-1/2" x 12 GA.	25.6	118
		3" x 12 GA.	30.7	129
	8	2-1/2" x 12 GA.	19.2	102
		3" x 12 GA.	23.0	112
		4" x 11 GA.	30.6	129

**Note: Mph values shown are provided for information only.**

They are calculated according to ANSI/ASCE 7-05,

American Society for Civil Engineers Minimum Design

Loads for Buildings and Other Structures, Exposure Category

C (open terrain with scattered obstructions having lengths,

generally less than 30 feet), based on post setting in 36" deep

concrete footer (in soil assumed to be of mid-range strength

and compaction. Since specified project conditions such as

jurisdictional building codes, elevation of installation, post

base/footer design, soil strength, etc., may change from project

to project, a structural engineering evaluation, unique to ap-

plicable requirements and conditions, should be performed.

Consult with your Ameristar Service Representative for an

estimate on Engineering Analysis and P.E. Certification.

## MONTAGE II®

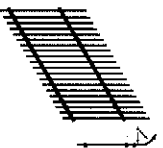


INVINCIBLE® WELDED PANELS\*

1-888-333-3422

FAX: 1-877-926-3747

## Invincible

2-Rail (Standard)  
4" Air Gap

(NOMINAL) PANEL HEIGHT	ITEM NUMBER	CATALOG PRICE (BLACK)	CATALOG PRICE (BRONZE)	PANEL WEIGHT	STOCKING COLOR
3' H	2H 1 X 20348			83	N/A
3-1/2' H	2H 1 X 20408			92	N/A
7' H	2H 1 X 20828			155	N/A
8' H	2H 1 X 20948			172	N/A

## X = COLOR SELECTION

B = BLACK

N = BRONZE

(8' Nominal) 91-1/4" Actual Panel Width  
1" Sq x 1/4 Ga. Picket = (20 - Pickets per Panel)

## Invincible

2-Rail (Flush Bottom)  
4" Air Gap

(NOMINAL) PANEL HEIGHT	ITEM NUMBER	CATALOG PRICE (BLACK)	CATALOG PRICE (BRONZE)	PANEL WEIGHT	STOCKING COLOR
3' H	2H 1 X 20348F			83	N/A
3-1/2' H	2H 1 X 20408F			92	N/A
7' H	2H 1 X 20828F			155	N/A
8' H	2H 1 X 20948F			172	N/A

## X = COLOR SELECTION

B = BLACK

N = BRONZE

(8' Nominal) 91-1/4" Actual Panel Width  
1" Sq x 1/4 Ga. Picket = (20 - Pickets per Panel)

# MONTAGE II® | WARRANTY

## WELDED ORNAMENTAL FENCE

Ameristar's Montage II® welded ornamental fences are manufactured from the highest quality materials by skilled craftsmen to meet the highest standards of workmanship in the industry. Galvanized steel framework is subjected to a multi-stage pretreatment/wash (with zinc phosphate), followed by a duplex cathodic electro-coat system consisting of an epoxy primer, which significantly increases corrosion protection, and an acrylic liquid topcoat, which provides the protection necessary to withstand adverse weathering effects.

The electro-coated surface on all Montage II welded ornamental panels and posts are guaranteed under normal and intended usage, against cracking, peeling, chipping, blistering or corroding commencing with the original purchase date and extending according to the applications defined in the table below. Normal and intended usage does not include physical damage, abrasion, or heavy salt spray exposure to the protective coating.

The following acts and/or omissions will void the subject warranty:

- Damage to the product caused by the property owner by use of landscape, gardening equipment, chemicals that may cause damage, and/or water sprinklers with high mineral content;
- Damage caused by adhesion of chicken wire, chain link mesh, welded wire, or other similar substance to the product;
- Damage caused by allowing plant life of any sort to grow directly upon or in contact with any portion of the product or sap from trees;
- Any alteration to the product itself by the property owner including any on-site cutting or welding, and/or, failure to follow any and all maintenance instructions provided by Ameristar® at the time of sale to the original purchaser even if these instructions are not forwarded to the ultimate claimant under this warranty.
- When cutting Montage II immediately seal the exposed surfaces by 1) Removing all metal shavings from the cut area 2) Applying zinc-rich primer to thoroughly cover cut edge and drilled hole and, after letting dry, 3) Applying two (2) coats of custom finish spray paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty.
- If contractor uses non-Ameristar parts/components, this will negate the warranty.

Ameristar Montage II welded ornamental fences are also guaranteed for the same period of time against defects in workmanship or materials. Should any Montage II welded ornamental panel or post manufactured by Ameristar fail in accordance with any of the above conditions, Ameristar warrants to the original purchaser their redemption through replacement, renewal or issuance of a pro-rated credit. The choice of redemption method is solely at the discretion of Ameristar. If the pro-rated alternative is chosen, the amount will be based on the original cost of materials at the date of purchase multiplied by the appropriate time and exposure factor from the table below:

Application	Length of Warranty
Fence Installations 0 to 1 Mile from Salt Water Coast Line	5 Years
Fence Installations 1 Mile to 10 Miles from Salt Water Coast Line	10 Years
Fence Installations Over 10 Miles from Salt Water Coast Line	20 Years

Note: Regardless of location and years in service, evidence of historical salt spray exposure shall be considered as grounds to void any warranty obligations.

Notice of failure under the conditions of this warranty shall be sent to Ameristar or its authorized representative, in writing, together with proof of purchase and shall specify the nature of the defect and when it was first observed as well as photographs of current site conditions. Should the fence be improperly installed, Ameristar shall not be responsible for guaranteed performance or appearance of the material. Neither does this guarantee apply when failure or damage is due to improper use or application, abuse or misuse, salt spray exposure (see Table and Note above), vandalism, or acts of God. Ameristar reserves the right to inspect the material to determine validity of the claim.

Upon acceptance of the claim by Ameristar or its authorized representative, redemption by replacement, renewal or issuance of a pro-rated credit shall be made by Ameristar. Reimbursement for labor necessary to restore and/or replace components that have been found defective under the terms of this warranty is guaranteed to the original purchaser for a period of five (5) years from the original purchase date. Ameristar reserves the right to select the qualified company or individual to perform the labor to repair or replace the components that are deemed to be defective under the terms of this warranty.

The above constitutes the complete warranty by the manufacturer. No other agreement, written or implied, is valid. Ameristar Fence Products does not authorize any other person or agent to make any other express warranties. Ameristar neither assumes nor authorizes any other person or agent to assume any other liability in connection with the Montage II welded ornamental fence system.



**AMERISTAR®**  
**FENCE PRODUCTS**

1555 N. MINGO RD., TULSA, OK 74116  
WWW.AMERISTARFENCE.COM